

Title: Houston—first to implement labor and delivery rapid testing in Texas

Health department/organization: Texas Department of State Health Services

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Goal: Promote rapid HIV testing at labor and delivery

Program type: Rapid testing

Collaborators: HIV/AIDS surveillance; other health department; Harris County Hospital District

Background

The majority of HIV-exposed infants in Texas are born in Harris County (Houston). Although the state has an opt-out HIV testing law for pregnant women, 5-10% of women in the county hospital system present to labor and delivery sites without prenatal care or HIV testing. Since 40% of HIV-infected infants are born to mothers with unknown HIV status in labor, it appears prudent to identify these women prior to delivery. If a woman is diagnosed with HIV while in labor, antiretroviral therapy (ART) can be provided to the mother and immediately postpartum to the infant, thus reducing the risk of perinatal transmission.

Until late 2004, the Harris County Hospital District (HCHD) had standard ELISA HIV testing for women presenting without an HIV test on file or no history of prenatal care, but it usually takes 24-48 hours to obtain results. In the past, the Department of State Health Services (DSHS) and City of Houston Health and Human Services had made multiple attempts to work with the Harris County Hospital District on implementing rapid testing, first with the Single Use Diagnostic System (SUDS) test, but with little success. Also, the City of Houston made multiple unsuccessful attempts to meet with the hospital staff to discuss implementing the newest rapid tests including OraQuick.

Objectives

The objectives of this project are to describe the actions of the DSHS and HCHD in coming together to discuss the effectiveness of rapid testing and its role as an intervention strategy for preventing the perinatal transmission of HIV. Another objective is to illustrate the steps taken from beginning to end in implementing rapid testing in labor and delivery for women who present without prenatal care or an HIV test during the current pregnancy.

Methods

In the summer of 2004, a Baylor University obstetrician/gynecologist, Dr. Judy Levison, began discussions with the residents and the head of Ben Taub Hospital OB about 1) using rapid HIV testing for women with no prior HIV screening and 2) the high prevalence of false positive ELISAs in the Hispanic population in HCHD. In September 2004, the lab agreed to make some Reveal and OraQuick tests available to women admitted to labor and delivery with no prior testing. In January 2005, during the Preventing Perinatal HIV Transmission Workshop, DSHS, HCHD and Memorial Herman Hospital met and together created a strategy for drafting and implementing a protocol for rapid testing in labor and delivery. In addition to bringing together nurses, physicians, and lab

personnel within HCHD, several Baylor University and University of Texas (UT) physicians met for the first time and realized the potential for collaboration on this project.

The key partners in the initiative to begin rapid testing in the HCHD have been staff at the HCHD, including Dr. Levison, lab manager Sylvia Waller, the Nurse Managers and Drs. Pamela Berens and Susan Ramin with UT/Memorial Herman Hospital in Houston, Texas. Jenny McFarlane, Tammy Sajak and Dr. Sharon Melville with DSHS used data from the Perinatal HIV Transmission Epidemiologic Profiles and infant HIV exposure rates from the Bureau of Vital statistics to determine which labor and delivery sites could benefit most from rapid HIV testing. In addition, Drs. Kasper and Melville of DSHS provided feedback on the HCHD's protocol so that it could be used statewide.

Results

The major accomplishments of this project are the development and implementation of:

- 1) a rapid testing protocol for HCHD and Memorial Hermann Hospital that has potential to be adapted for other sites in Texas
- 2) an educational intervention in the form of a slide presentation to nurses and physicians
- 3) a pre- and post-presentation questionnaire to assess the impact of the educational intervention (the post test is administered immediately and 4-6 weeks after the presentation)
Over 50 physicians and nurses had attended a presentation by early May 2005
- 4) a validation study comparing ELISA and rapid tests for 1000 paired blood samples in HCHD to confirm the equal or better performance of the rapid test in a low HIV prevalence, largely Hispanic population

Conclusions

Future plans include:

- 1) adaptation of the protocol to make it easily useable in labor and delivery sites anywhere in Texas
- 2) continued slide presentations to include more nurses and physicians
- 3) analysis of the questionnaires
- 4) completion of the validation study comparing ELISA and OraQuick